programs. Detailed environmental and engineering analysis for larger mainstem capital improvements or extensive negotiations for major programmatic changes is required for some of the projects. Through the continuing process of analysis, some projects may be determined to be infeasible or inconsistent with the goals of the study. Additional projects will be recommended based upon study team review. These initiatives will be pursued through continued federal and local cooperation in the Ecosystem Restoration Study.

Public Education and Outreach Efforts

King County is undertaking a large-scale public involvement and information effort to ensure that our citizens understand the importance of restoring the salmon runs and safeguarding our water supplies.

The following is a general description of the County's current education and outreach efforts. Generally, the purpose of these programs is to raise awareness among members of the general public or a targeted group of their connection to water resources and salmon, and how they can help improve water quality or protect salmon.

- Water Quality Advertising Campaign: A multi-jurisdictional advertising campaign to educate the general public about their connection to water quality and encourage personal behavior changes that will improve water quality (e.g. fix oil leaks, scoop pet waste, reduce use of fertilizers/pesticides). Uses high-profile TV, radio, and print ads. Cost: \$100,000. Audience: reaches more than 500,000 viewers.
- Natural Lawn Campaign: A multi-jurisdictional advertising and public outreach campaign to educate the general public regarding the impact typical lawn care has upon water quality and water supplies, and to encourage personal behavior changes that will improve water quality and conserve water (e.g. use mulching mower, water lawns only once per week, reduce use of chemicals or use organic fertilizers). Uses high-profile TV, radio, and print ads, media events, and local community events. Audience: reaches more than 500,000 viewers.
- School education programs: Educators visit classrooms to teach K-12 students about their personal connection to water quality, household hazardous waste and resource conservation. Information is provided about personal behavior changes which students and their families can take to help protect water quality and conserve water and other resources. Cost: 2 full-time-equivalent (FTE) staff positions plus approximately \$200,000. Audience: Reaches more than 15,000 students.
- Educational workshops, tours, etc.: Workshops, field trips, tours and other opportunities are provided for citizens to learn about their connection to water resources and ways they can help protect water quality and salmon in a hands-on setting. One example is the Cedar River Salmon Journey, in which citizens visit sites

- along the Cedar River to watch spawning salmon and hear presentations from volunteer naturalists on salmon ecology and how they can help protect salmon. Cost: 4 FTE staff positions plus approximately \$200,000. Audience: more than 2,500 participants.
- Salmon/ESA Speakers' Bureau: Trained staff and volunteer speakers present information about salmon, the Endangered Species Act, and how people can help protect salmon. Targeted audiences include business organizations, service clubs, community groups, schools, etc. Cost: 2 FTE staff positions plus approx. \$10,000. Audience: estimated more than 3,500 persons for 1999.
- Newsletters, brochures, and publications: Newsletters with educational information about peoples' connection to water resources and how they can help protect water quality and salmon are distributed to targeted audiences. Newsletters include *Downstream News* (volunteer program and water quality), *County Tracks* (Parks interpretive program/wildlife information), *Farm and Forest* (water quality best management practices for resource lands). Brochures, fact sheets, and other publications provide focused educational messages about water resources and personal behavior changes people can make to help protect salmon. Cost: 3 FTE staff positions plus approximately \$100,000. Audience: more than 60,000 people.
- Volunteer habitat restoration and volunteer monitoring: This program directly involves the public in hands-on restoration activities to teach them about water resources and provide meaningful improvement in salmon habitat. It involves volunteers in collection of monitoring data needed to track watershed management activities.
- Riparian planting events: Volunteers participate in hands-on activities to replant native vegetation in degraded riparian, wetland, estuarine or other critical habitat areas. Volunteers learn about the importance of riparian areas, native vegetation, and other habitat features. Nearly 15,000 plants were planted by volunteers in 1998. Cost: 4 FTE staff positions plus approximately \$200,000. Audience: more than 1,500 active volunteers.
- Native plant salvage program: Volunteers salvage native trees and shrubs from construction sites and maintain salvaged vegetation until it is replanted in habitat restoration projects. Volunteers learn about the importance of native vegetation to riparian areas. Cost: .75 FTE staff position plus approximately \$50,000. Audience: more than 200 active volunteers.
- Habitat Partners Program: Volunteers commit to maintaining new habitat restoration sites. Activities include weeding, watering, replanting, monitoring, and other enhancement activities. Cost: .5 FTE plus approx. \$10,000. Audience: more than 200 active volunteers.
- Volunteer monitoring programs: Volunteers monitor numerous water resource parameters, including salmon spawner surveys,

wetland, lake and beach monitoring, etc. Data is collected according to specified quality assurance programs and is used in various watershed management programs. Cost: 3 FTEs . Audience: more than 350 active volunteer monitors.

- Grant Programs: The purpose of these programs is to provide seed funding to encourage community-based projects that educate the community and provide direct improvement to water resources and salmon habitat. Grant projects leverage considerable matching resources like volunteer labor and in-kind donations.
- Watershed Action Grant program: Grant recipients carry out projects to educate and involve the community on water resource issues or directly improve water resources or salmon habitat. Grants are available for community groups, schools, businesses and agencies. Cost: 2 FTE staff positions plus \$60,000. Audience: directly involves 2,000; reaches more than 9,000 persons.
- Water Stewardship Fund: Funds community projects that protect or improve watersheds, streams, rivers, lakes, wetlands and tidewaters. The projects must protect or improve water quality, foster community stewardship, develop long-term partnerships, leverage resources, and have the assurance of a long-tern legacy. Grants are available for schools, agencies, community groups, tribes, and special districts. Cost: 1 FTE.
- Urban Reforestation and Habitat Restoration grant fund: Provides funding to volunteer organizations, community groups and government agencies for reforestation and habitat restoration projects within the urban growth area of King County. Cost: .5 FTE staff position plus approximately. \$50,000.

Monitoring Efforts

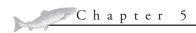
Benchmark System for the Countywide Planning Policies

King County and its cities voluntarily developed and implemented a system of outcomes and indicators to evaluate jurisdictions' progress in implementing the Countywide Planning Policies under GMA. The benchmark system includes sections to measure progress on the environment and land use, which are relevant to salmon conservation strategies. See Chapter 5 Appendix 5.3 for a complete overview of the benchmark system.

Early Actions to Achieve Salmon Conservation

Since March 9, 1998, when it was first proposed that the chinook salmon be listed as "threatened," King County has initiated a number of early actions that clearly provide benefits to chinook salmon and their habitat.

These "early action" projects and programs are found in three places in this report. Most projects are discussed in this chapter in the following text and matrix. This text and matrix summarizes actions proposed to address three major areas of King County responsibility: regulation of new development,



provision of county services such as roads and wastewater treatment, and habitat improvements. Additional actions proposed by the WRIA Steering Committees are found in Chapter 7, and those recommended by the review panel of biologists are discussed in Chapter 6.

Note that the commitment to implement the early action recommendations described in this chapter varies. Some have been reviewed and approved by the King County Council; some have been funded through current budgets, and are firm commitments. Others have arisen through the systematic evaluation of County activities and require legislative action and funding before they are implemented.

Major Early Action Initiatives

There are eight major early action initiatives that King County will undertake in 1999 and 2000 that are the cornerstones of our short-term response to the ESA listing:

- Protecting and Restoring Habitat
- Improving Salmon Recovery through the County Comprehensive Plan
- Increasing Enforcement of Regulations
- Improving Protections for Sensitive Areas
- Increasing Review of New Development Proposals Through SEPA
- Improving Roads Maintenance Practices
- Monitoring Efforts: Freshwater Monitoring Assessments and Analysis
- Conducting Essential Research

Protecting and Restoring Habitat

King County will make a major commitment in its ESA response to protect and restore salmon habitat. This initiative will borrow on the programs described previously that have already protected thousands of acres of essential habitat in the County. Looking ahead, there are three key elements to the County's habitat initiative: a watershed-based process to identify and prioritize habitat needs, a funding strategy to provide the needed funds, and processes to implement the projects.

Identifying and prioritizing habitat needs will occur through the WRIA-based conservation planning strategy discussed in Chapter 7. The Steering Committees overseeing these conservation plans are already prioritizing projects in preparation for the FY 2000 federal budget process. Funding for current projects and fundraising for new habitat projects is discussed at length in Chapter 8 of this report. Project recommendations are also found in the matrix that concludes this chapter. For implementation of habitat projects, King County will continue the use of proven mechanisms, such as the science-based acquisition program Waterways 2000, and the use of specialized capital projects staff that have implemented basin plan capital recommendations.

Improving Salmon Recovery through the County Comprehensive Plan

Habitat is the one factor of decline that is greatly affected by the land use policies and development regulations of local governments. The State Growth Management Act (GMA) provides much of the land use and regulatory framework necessary for salmon recovery. Under the Countywide Planning Policies, urban development is concentrated within urban growth boundaries and rural areas are provided protection from urban encroachment. The Countywide Planning Policies also provide guidance for the development of individual jurisdictions' comprehensive plans. Accordingly, the King County Comprehensive Plan guides growth and development within unincorporated King County. First adopted in 1994, the Comprehensive Plan recognizes the need to protect threatened and endangered species through several policies. This year, the County is embarking on the first major review of the Comprehensive Plan since its adoption. The overriding goals for this review, called the 2000 Update, include improving the policy framework necessary to accomplish salmon recovery. Changes in the following areas can be anticipated:

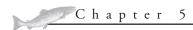
- Land use designations may be revised as necessary to preserve and begin restoration of sensitive salmon habitat;
- Articulating the role of the County's resource lands, i.e., forests and farmland in protecting habitat vital to fish recovery;
- Acknowledging watershed-based recovery planning efforts in the Green, Cedar and Snohomish Watershed Recovery Inventory Areas (WRIAs);
- Addressing the impacts of transportation projects on fish habitat through more sensitive transportation planning.

Further detail is provided in Chapter 5 Appendix 5.1 and in the matrix following this section.

Increasing Enforcement of Regulations

The evaluation of County activities conducted to produce this report indicates that the framework of regulations and programs that King County has initiated to protect salmon is strong, but that enforcement of regulations has not been as aggressive as needed. In the 1999 budget, King County has made a substantial, new commitment by authorizing eight additional code enforcement officers to enforce salmon-related regulations.

This commitment, which is itemized in the matrix later in this chapter, includes new staffing for enforcement activities, additional training for enforcement staff, and additional monitoring to determine compliance with permitting conditions. The initiative focuses particularly on the key King County regulations affecting development along salmon-bearing streams and rivers: the Sensitive Areas Ordinance, Clearing and Grading code, and Surface Water Management regulations.



Improving Protections for Sensitive Areas

The principal tool for protecting sensitive areas from the impacts of land use and development in King County is the Sensitive Areas Ordinance (KCC 21A) adopted in 1990. The ordinance establishes regulations on new development to protect steep slopes, streams, and wetlands on or adjoining sites. Because it applies stringent standards across the entire unincorporated area, the SAO is a fundamental element of stream protection in King County.

In order to improve protections for salmon-bearing streams, King County is proposing to update the ordinance, increase enforcement of the regulations, and initiate an enhanced monitoring program to evaluate compliance and performance. Enforcement and monitoring are addressed in detail in the matrix in this chapter. For additional discussion of the Sensitive Areas Ordinance, please see the review of this program by the review panel of biologists in Chapter 6.

Increasing Review of New Development Proposals through SEPA

King County intends to undertake a comprehensive review of regulations relating to salmon and habitat through the conservation planning processes described in detail in Chapter 7. Changes to regulations also are likely to occur periodically as more intensive code review processes are undertaken and as conservation plans are completed. In the meantime, King County will initiate an interim process to ensure that proposed development and land use actions incorporate adequate protections for salmon and habitat.

The vehicle for interim consideration of development and land use proposals will be through the use of the State Environmental Policy Act (SEPA). The use of SEPA authority to condition permits for projects affecting salmon habitat is discussed in Chapter 4, and the early action recommendation for SEPA is discussed in detail as Addendum 1 of this chapter. It is anticipated that the enhanced SEPA review described in the Addendum will commence during the fourth quarter of 1999.

Improving Roads Maintenance Practices

All of the salmon-bearing streams and rivers within King County are paralleled or crossed by roads in places; some are bordered by major roads for most of their length. Maintenance practices for these roads can have a considerable impact on the quality of these waters. In order to ensure that maintenance practices on King County roads provide adequate protection for salmon and habitat, the county is initiating a review of the King County Department of Transportation's *Road Maintenance Best Management Practices Manual, Final Draft* with the National Marine Fisheries Service.

The manual focuses specifically on techniques that roads maintenance staff can use to contain sediment and prevent erosion while working in and along streams and waterways. In addition to addressing how to plan for erosion control for proposed projects, the manual deals with how to respond to emergencies. The manual also establishes recommendations for

training, monitoring, and adaptive management related to roads maintenance. The Best Management Practices have been included in the 1999 work program and budget for Roads Maintenance. The King County Council approved funding and staffing to begin BMP implementation this year. King County is committed to moving the manual into the King County Council adoption process as an administrative rule. Additional recommendations regarding roads maintenance and improvements are found in the following matrix. In addition, further discussion of early action recommendations related to roads maintenance is included in Chapter 5 Appendix 5.5.

Monitoring Efforts: Freshwater Monitoring Assessment and Analysis

The King County Freshwater Monitoring, Assessment and Analysis Program arose from the consolidation and integration of former Surface Water Management and Water Pollution Control Programs in 1998. The Program provides short and long-term evaluation of watershed health and watershed management efforts by collecting, synthesizing and evaluating physical, chemical and biological data.

Program Design

- Assess the present quality of lakes, streams, and other water resource areas, e.g. wetlands, shorelines, and beaches;
- Identify short- and long-term trends, existing or potential problems and suggest corrective measures;
- Provide water resource data and technical support in support of programs that protect water quality and abate point and nonpoint pollution, e.g., NPDES Program;
- Evaluate the effectiveness of watershed management planning and implementation activities, e.g., restoration projects;
- Identify regulations, programs, and capital projects that successfully protect aquatic resources from flooding and fish habitat degradation;
- Identify areas in need of protection or restoration; and
- Provide analytical tools to evaluate water quality impacts of potential future King County

Goals and Objectives

- Collect, analyze and report critical water resource (including biological and habitat) data for Lake Sammamish, Lake Washington, streams and other water bodies;
- Provide decision-makers and managers with information necessary to meet applicable legal requirements and evaluate programmatic goals for fisheries and water quality;
- Support development and implementation of the WRIA Plans, the RWSP (Regional Wastewater Services Plan), and associated HCP(Habitat Conservation Plan);